

What is claimed is:

1 1. A method comprising:
2 providing wavelet coefficients that indicate an image;
3 representing each wavelet coefficient as a collection of ordered bits; and
4 coding the bits of each order to indicate zerotree roots that are associated with the
5 order.

1 2. The method of claim 1, wherein the act of coding the bits comprises:
2 determining which of the bits indicate zeros; and
3 classifying each zero as either an isolated zero or a zerotree root.

1 3. The method of claim 2, wherein some of the wavelet coefficients are
2 descendants of some of the other wavelet coefficients, and wherein the act of determining
3 comprises:
4 traversing a descendant tree from a bit associated with one of said some of the
5 wavelet coefficients to bits associated with said other wavelet coefficients to locate the
6 zerotree roots.

1 4. The method of claim 1, wherein the act of providing comprises:
2 producing different levels of the code, each level being associated with a different
3 resolution of the image.

1 5. The method of claim 4, wherein the levels that are associated with lower
2 resolution are associated with higher orders.

1 11. The article of claim 10, wherein the levels that are associated with lower
2 resolutions are associated with higher orders.

1 12. A computer system comprising:
2 a processor; and
3 a memory storing a program to cause the processor to:
4 provide wavelet coefficients that indicate an image,
5 represent each wavelet coefficient as a collection of ordered bits, and
6 code the bits of each order to indicate zerotree roots that are associated
7 with the order.

1 13. The computer system of claim 12, wherein the program causes the
2 processor to code the bits by determining which of the bits indicate zeros and classifying
3 each zero as either an isolated zero or a zerotree root.

1 14. The computer system of claim 13, wherein some of the wavelet
2 coefficients are descendants of some of the other wavelet coefficients, and wherein the
3 processor determines which of the bits are zeros by traversing a descendant tree from a
4 bit associated with one of said some of the wavelet coefficients to bits associated with
5 said other wavelet coefficients to locate the zerotree root.

1 15. The computer system of claim 12, wherein the program causes the
2 processor to provide the wavelet coefficients by producing different levels of the code,
3 each level being associated with a different resolution of the image.